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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,510	02/13/2004	Eric H. Carter	MS306138.01 / MSFTP551US	8913

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EXAMINER	
VERDI, KIMBLEANN C	
ART UNIT	PAPER NUMBER
2194	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/779,510	CARTER ET AL.	
	Examiner	Art Unit	
	KimbleAnn Verdi	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 February 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12,14-30,38 and 39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,14-30,38 and 39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-12, 14-30 and 38-39 are pending in the current application.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 13, 2009 has been entered.

Claim Objections

3. Claims 18, and 24 are objected to because of the following informalities:

   a. Claim 1, line 4, claim 14, line 3, and claim 18, line , the recitation of "for solving a host", should be "for solving in a host";

   b. Claim 1, line 8, the recitation of "that domain terminology maps to native terminology", should be "that the domain terminology maps to the native terminology";

   c. Claim 1, lines 10-11, the recitation of "a host application", should be "the host application";

   d. Claim 18, line 5, and claim 24, line 3, the recitation of "API" should be "application programming interface (API)";

e. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 14, 18, 24, and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. The claim language in the following claims is not clearly understood:

a. As per Claim 1:

i. Lines 10, it is not clearly understood how a host application uses domain terminology related to the problem to facilitate document development. (i.e. host interfaces with new API to use domain terminology, Examiner suggests amending the claim as follows: a generation component that produces a new API based upon the mapping, wherein the new API interfaces to the API of the host application and enables the host application to operate on the domain terminology, wherein the host facilitates document development using domain terminology related to the problem).

b. As per claims 14, 18, 24, and 39, it has the same deficiencies as claim 1.

c. Claims 2-12, 15-17, 19-23, and 25-30 did not cure the deficiencies of claims 1, 14, 18, 24, and 39.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 24-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

9. Claim 24 is directed to a process (method), however, the process does not include a physical structure and are not tied to another statutory class, as such the claims are not directed to statutory subject matter.

In contrast, a process claim which explicitly recites the particular machine or apparatus, or recites a step that inherently involves the use of a particular machine or apparatus is therefore directed to statutory subject matter. Claims 25-30 did not cure the deficiencies of claim 24. Appropriate correction or amendment is required.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 1-7, 12, 14-18, 21-22, 24-29, and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fry et al. (hereinafter Fry, previously cited) (U.S. Publication No. 2003/0163603 A1) in view of White et al. (hereinafter White, previously cited) (U.S. Patent 7,370,335 B1) and further in view of Soukup (U.S. Patent 7,293,253 B1).

12. **As to claim 1**, Fry teaches the invention substantially as claimed including a system embodied on a computer-readable storage medium that facilitates extending the functionality of an application, comprising:

a schema component (paragraph [0020]) that includes a schema element (paragraph [0020]) representative of domain terminology of a problem for solving in a host application (e.g. any defined schema is representative of domain terminology of a problem to be solved (paragraph [0020]).

a mapping component (paragraph [0022]) that maps the schema element to a construct of an API of the host application (paragraphs [0020] and [0030]).

13. Fry does not explicitly disclose the domain terminology is different from native terminology utilized in a general application programming interface (API) of the host application;

the domain terminology maps to the native terminology and enables the host application to operate on the domain terminology; and

a generation component that produces a new API based upon the mapping, wherein a host application facilitates document development using domain terminology related to the problem.

14. However White teaches the domain terminology is different from native terminology utilized in a general application programming interface (API) of the host application (col. 7, lines 9-11 and 15-22);

the domain terminology maps to the native terminology (col. 7, lines 9-11) and enables the host application to operate on the domain terminology (col. 7, lines 22-24, col. 8, lines 20-24, and col. 24, lines 12-22); and

wherein a host application facilitates document development (i.e. process definition 215, Fig. 2) using domain terminology related to the problem (col. 8, lines 14-24).

15. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified data binding framework of Fry with the teachings of an adapter layer from White and interface rapper from Soukup because these features would have provided a mechanism to map vendor-specific APIs to a standardized API (col. 5, lines 21-25 of White) and allows a software application to transparently communication with the second interface (Abstract, lines 13-15).

16. Fry as modified by white does not explicitly disclose a generation component that produces a new API based upon the mapping.

17. However Soukup teaches a generation component (i.e. auto generation program 102, Fig. 5) that produces a new API (i.e. interface wrapper 106, Fig. 5) based upon the mapping (auto generation program 102, Fig. 5).

18. **As to claim 2**, Fry teaches the API is associated with at least one of a word processing application, spreadsheet application, drawing application, presentation graphics application, website design and development application, database application, project management application, publication application, note management application and, browser and communication application (paragraphs [0022] and [0023]).

19. **As to claim 3**, Fry teaches the schema component (paragraph [0020]) facilitates generation of at least one of a data programming model (paragraph [0029]) and a view programming model (paragraphs [0020], [0030], and [0043]).

20. **As to claim 4**, Fry teaches the generation component (paragraph [0022]) that generates at least one of a data programming model (paragraph [0029]) and a view programming model (paragraphs [0020], [0030], [0029] and [0043]).

21. **As to claim 5**, Fry as modified by White and further modified by Soukup teaches a generation component (paragraph [0022] of Fry) that generates a data programming model and a view programming model (paragraphs [0029] and [0043] of Fry) that are automatically connected to each other via data binding (paragraphs [0033]-[0035] of Fry), the view programming model provides an interface by which the host application operates on the domain terminology (col. 7, lines 22-24, col. 8, lines 20-24, and col. 24, lines 12-22 of White).

22. **As to claim 6**, Fry teaches a generation component (paragraph [0022]) that generates at least one of a data programming model (paragraph [0029]) and a view programming model (paragraphs [0020] and [0030]), wherein the data programming model interfaces to the host API via the view programming model (paragraphs [0041]-[0043).

23. **As to claim 7**, Fry teaches a separation component (paragraph [0027]) that separates data from document content (paragraph [0027]).

24. **As to claim 12,** Fry as modified by White and further modified by Soukup teaches the schema component (paragraph [0020] of Fry) (i.e. first interface of Soukup) and the mapping component (paragraph [0022] of Fry) (i.e. mapping 104, Fig. 5 of Soukup) facilitate generation of a new API (i.e. interface wrapper 106, Fig. 5 of Soukup) that interfaces to the API of the host application (paragraphs [0030] and [0043]-[0044] of

Fry) (col. 2, lines 44-54 of Soukup) and enables the host application to operate on the domain terminology (col. 7, lines 22-24, col. 8, lines 20-24, and col. 24, lines 12-22 of White).

25. **As to claim 14**, this claim is rejected for the same reasons as claim 1 since claim 14 recites the same or equivalent invention, see the rejection to claim 1 above. In addition Fry as modified by White and further modified by Soukup teaches processing hardware to execute at least one instruction associated with the schema component, mapping component, or generation component (col. 25, lines 12-34 of White).

26. **As to claim 15**, Fry teaches the schema component (paragraph [0020]) includes a view schema (paragraph [0043]) that represents only data of interest of a host application (paragraph [0020]).

27. **As to claim 16**, Fry teaches the schema component (paragraph [0020]) includes a view schema (paragraph [0043]) that facilitates pulling a plurality of objects of interest from a plurality APIs of the host application (paragraph [0044]).

28. **As to claim 17**, Fry teaches at least one of the schema component (paragraph [0020]) and the mapping component (paragraph [0022]) facilitate generation of a view API (paragraphs [0043]-[0044]) that is a hybrid of view schema (paragraph [0043]) and the API of the host application (paragraphs [0043]-[0044]).

29. **As to claim 18**, this claim is rejected for the same reasons as claim 1 since claim 18 recites the same or equivalent invention, see the rejection to claim 1 above.

30. **As to claim 21**, Fry teaches the schema component facilitates generation of a new API that interfaces to the API (paragraphs [0030] and [0043]-[0044]).

31. **As to claim 22**, Fry teaches the schema component facilitates manipulation of a variable without reference to underlying register and stack allocations (paragraph [0044]).

32. **As to claim 24**, this claim is rejected for the same reasons as claim 1 since claim 24 recites the same or equivalent invention, see the rejection to claim 1 above.

33. **As to claim 25**, Fry teaches automatically separating the program model into a data model (paragraph [0029]) and a view model (paragraph [0043]).

34. **As to claim 26**, Fry teaches exposing data of the problem domain elements as named objects in a view model (paragraphs [0041]-[0043]).

35. **As to claim 27**, Fry teaches exposing data of the problem domain elements as declarations in a data model (paragraphs [0020], [0030], [0029]).

36. **As to claim 28**, Fry teaches the program model is a schema-based, machine generated model (paragraphs [0020] and [0030]).

37. **As to claim 29**, Fry teaches exposing data of the problem domain elements as first class named objects (paragraph [0044]).

38. **As to claim 38**, this claim is rejected for the same reasons as claims 1, 5, and 6 since claim 38 recites the same or equivalent invention, see the rejection to claims 1, 5, and 6 above.

39. **As to claim 39**, this claim is rejected for the same reasons as claim 1 since claim 39 recites the same or equivalent invention, see the rejection to claim 1 above.

40. Claims 8-11, 19-20, 23, and 30, are rejected under 35 U.S.C. 103(a) as being unpatentable over Fry et al. (hereinafter Fry) (U.S. Publication No. 2003/0163603 A1) in view of White et al. (hereinafter White) (U.S. Patent 7,370,335 B1) and further in view of Soukup (U.S. Patent 7,293,253 B1)., as applied to claims above, and further in view of Evans (U.S. Publication No. 2003/0159030 A1, previously cited).

41. **As to claim 8**, Fry as modified by White and further modified by Soukup teaches the invention substantially as claimed including a separation component (paragraph [0027]).

42. Fry as modified by White and further modified by Soukup does not explicitly disclose generates a data island in a document of the host application.

43. However Evans teaches generates a data island in a document of the host application (paragraph [0022]).

44. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have further modified the unmarshaller of Fry as modified by White and further modified by Soukup with the teachings of unencrypter from Evans because this feature would have further provided a mechanism to decrypt the data, in the data island, using the same encryption routine used by the sender, once the data island is decrypted, the data receiver loads the results into the XML document object model (DOM), and once the results are in the DOM, the data elements are extracted from the data island using the appropriate XML document object properties and methods (paragraph [0020] of Evans).

45. **As to claim 9**, Fry as modified by White, further modified by Soukup, and further modified by Evans teaches the data island is editable (paragraph [0022] of Evans).

46. **As to claim 10**, Fry as modified by White, further modified by Soukup, and further modified by Evans teaches the data island can be at least one of accessed or modified without launching the host application (paragraph [0022] of Evans).

47. **As to claim 11**, Fry as modified by White, further modified by Soukup, and further modified by Evans teaches contents of the data island and contents of the document are synchronized when the document is run inside the host application via data binding (paragraph [0022] of Evans).

48. **As to claim 19**, Fry as modified by White, further modified by Soukup, and further modified by Evans teaches a separation component (paragraph [0027] of Fry) that generates an editable data island in a document of the host application (paragraph [0022] of Evans).

49. **As to claim 20**, this claim is rejected for the same reasons as claim 11 since claim 20 recites the same or equivalent invention, see the rejection to claim 11 above.

50. **As to claim 23**, this claim is rejected for the same reasons as claim 10 since claim 23 recites the same or equivalent invention, see the rejection to claim 10 above.

51. **As to claim 30**, Fry as modified by White, further modified by Soukup, and further modified by Evans teaches separating data from a view model of the program

model (paragraph [0029] of Fry) by, generating data that conforms to the schema (paragraphs [0029] and [0043] of Fry); and

saving the data as a data island in a document of the application (paragraph [0022] of Evans).

Response to Arguments

52. Applicant's arguments with respect to claims 1-12, 14-30, and 38-39 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

53. The prior art made of record on the accompanying PTO-892 and not relied upon, is considered pertinent to applicant's disclosure.

54. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KimbleAnn Verdi whose telephone number is (571)270-1654. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST..

55. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

56. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Li B. Zhen/
Primary Examiner, Art Unit 2194

KV
April 24, 2009